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IN THE CLAIMS

Please replace claims 1-18 with the claims appearing below, in which claims 1-10, 13, 14, 17, and 18 have been amended.

1. (Currently Amended) Apparatus comprising:

at least [one] a first sensor to detect radiation and to output a first image [signals] signal based on the [detected] radiation detected by the first sensor; and

offset correction circuitry to compensate errors in at least the first image [signals] signal and to output at least a corrected first image [signals] signal,

wherein the offset correction circuitry includes means for providing [a] at least one time-varying compensation signal that is added to the first image signal to generate the corrected first image signal.

2. (Currently Amended) The apparatus of claim 1, wherein the apparatus comprises a plurality of sensors including the first sensor, the plurality of sensors outputting respective image signals based on the radiation detected by each sensor of the plurality of sensors, and wherein the means for providing [a] at least one time-varying compensation signal includes means for providing a different time-varying compensation signal for [each sensor] at least two sensors of the plurality of sensors.

3. (Currently Amended) The apparatus of claim 1, wherein:

the means for providing [a] at least one time-varying compensation signal includes a capacitor; and

the at least one time-varying compensation signal is based on a charging and a discharging of the capacitor.

4. (Currently Amended) The apparatus of claim 1, wherein the means for providing [a] at least one time-varying compensation signal includes a compensating source to compensate changes in at least the first image [signals] signal due to current-induced heating of [the] at least [one] the first sensor.

5. (Currently Amended) The apparatus of claim 1, wherein the means for providing [a] at least one time-varying compensation signal includes means for providing a variable current.

6. (Currently Amended) The apparatus of claim 5, wherein the means for providing the variable current includes means for adding the variable current to the first image [signals] signal such that an average value of the variable current and the first image [signals] signal remains essentially constant during a signal sampling period.

7. (Currently Amended) The apparatus of claim 1, wherein the means for providing [a] at least one time-varying compensation signal includes means for providing a variable voltage.

8. (Currently Amended) The apparatus of claim 7, wherein the means for providing the variable voltage includes means for adding the variable voltage to the first image [signals] signal such that an average value of the variable voltage and the first image [signals] signal remains essentially constant during a signal sampling period.

9. (Currently Amended) A method for compensating errors in [an] at least a first image signal generated by [at least one] a first sensor in response to radiation detected by the first sensor, comprising a step of:

a) adding a time-varying compensation signal to the first image signal.

10. (Currently Amended) The method of claim 9, [wherein the time-varying compensation signal is different for each sensor] wherein a plurality of sensors including the first sensor generate respective image signals including the first signal in response to radiation detected by each sensor of the plurality of sensors, and wherein the act a) includes an act of:

adding a different time-varying compensation signal to at least two respective image signals of at least two sensors of the plurality of sensors.

11. (Original) The method of claim 9, wherein the time-varying compensation signal is a variable current.

12. (Original) The method of claim 9, wherein the time-varying compensation signal is a variable voltage.

13. (Currently Amended) The method of claim 9, wherein the step of adding includes a step of generating the time-varying compensation signal by charging and discharging a capacitor in a predetermined manner based on the first image signal.

14. (Currently Amended) The method of claim 9, wherein the step of adding includes a step of generating the time-varying compensation signal such that an average value of the time-varying compensation signal and the first image signal remains essentially constant during a signal sampling period.

15. (Original) The method of claim 14, wherein the time-varying compensation signal is a variable current.

16. (Original) The method of claim 14, wherein the time-varying compensation signal is a variable voltage.

17. (Currently Amended) The method of claim 9, [wherein: the at least one sensor includes a plurality of sensors; and the step of adding includes a step of] wherein a plurality of sensors including the first sensor generate respective image signals including the first signal in response to radiation detected by each sensor of the plurality of sensors, and wherein the act a) includes an act of:

generating the time-varying compensation signal based on non-uniformities of the sensors.

18. (Currently Amended) The method of claim 9, wherein the step of adding includes a step of generating the time-varying compensation signal based on changes in the first image signal due to current-induced heating of at least the first sensor.

Please add claims 19-29 as follows:

19. (New) An apparatus, comprising:

at least a first sensor adapted to generate a first signal in response to radiation detected by the first sensor; and

at least one signal generator configured to add a first time-varying compensation signal to the first image signal so as to provide an adjusted first image signal.

20. (New) The apparatus of claim 19, wherein the first sensor is a microbolometer.

21. (New) The apparatus of claim 19, further comprising a plurality of sensors including the first sensor, the plurality of sensors adapted to generate respective image signals including the first signal in response to radiation detected by each sensor of the plurality of sensors,

wherein the at least one signal generator is configured to add a different time-varying compensation signal to at least two respective image signals of at least two sensors of the plurality of sensors so as to provide at least two adjusted image signals.

22. (New) The apparatus of claim 19, wherein the at least one signal generator is configured to generate the first time-varying compensation signal as a variable current.

23. (New) The apparatus of claim 19, wherein the at least one signal generator is configured to generate the first time-varying compensation signal as a variable voltage.

24. (New) The apparatus of claim 19, wherein the at least one signal generator includes at least one capacitor, the at least one signal generator being configured to generate the first time-varying compensation signal by charging and discharging the at least one capacitor in a predetermined manner based on the first image signal.

25. (New) The apparatus of claim 19, wherein the at least one signal generator is configured to provide the adjusted first image signal such that an average value of the adjusted first image signal remains essentially constant during a sampling period.

26. (New) The apparatus of claim 25, wherein the at least one signal generator is configured to generate the first time-varying compensation signal as a variable current.

27. (New) The apparatus of claim 25, wherein the at least one signal generator is configured to generate the first time-varying compensation signal as a variable voltage.

28. (New) The apparatus of claim 19, further comprising a plurality of sensors including the first sensor, the plurality of sensors adapted to generate respective image signals including the first signal in response to radiation detected by each sensor of the plurality of sensors,

wherein the at least one signal generator is configured to generate at least the first time-varying compensation signal based on non-uniformities of the sensors.

29. (New) The apparatus of claim 19, wherein the at least one signal generator is configured to generate the first time-varying compensation signal based on changes in the first image signal due to current-induced heating of at least the first sensor.